Applicants: Hobgood, Andrew W.; Ebersole, Jr., John F.; Ebersole, John F. For: Method for Automatically Tracking Objects in Augmented Reality

## ABSTRACT OF THE DISCLOSURE

The invention is a method for displaying otherwise unseen objects and other data using augmented reality (the mixing of real view with computer generated imagery). The method uses a motorized camera mount that can report the position of a camera on that mount back to a computer. With knowledge of where the camera is looking, and the size of its field of view, the computer can precisely overlay computer-generated imagery onto the video image produced by the camera. The method may be used to present to a user such items as existing weather conditions, hazards, or other data, and presents this information to the user by combining the computer generated images with the user's real environment. These images are presented in such a way as to display relevant location and properties of the object to the system user. The primary intended applications are as navigation aids for air traffic controllers and pilots in training and operations, and use with emergency first responder training and operations to view and avoid/alleviate hazardous material situations, however the system can be used to display any imagery that needs to correspond to locations in the real world.

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